

Remarks

Claims 1-22 remain pending in the application. No amendments to the claims are submitted herewith. Reconsideration of the application is respectfully requested in view of the following remarks.

The Final Office Action rejected the claims on two grounds. The first ground was lack of written description under 35 USC § 112, first paragraph. The second ground was anticipation under 35 USC § 102(e) by U.S. Patent 6,015,214 (Heenan et al.).

Written Description

The undersigned wishes to thank Examiner Phan for the detailed explanation given in the Advisory Action relating to the Examiner's written description rejections. With that explanation, Applicant is in a much better position to address those rejections. For clarity, we address separately each of the words or phrases at issue:

a. "rectangular cube corner elements"

Applicant thanks Examiner Phan for acknowledging in the Advisory Action that the instant application teaches rectangular cube corner elements in connection with FIG. 9. Thus, we respectfully submit that there is no longer any disagreement on this point, and that no claim is being rejected under the written description requirement for reciting "rectangular cube corner elements" or the like.

b. "a set of parallel grooves defining groove surfaces orthogonal to each other and to the inclined surface so as to form a row of rectangular cube corner elements"

The Examiner asserts that this language (referred to herein as the "*parallel grooves* phrase") is not supported by the original disclosure "because the cube corner elements, as taught in the specification, are formed by groove surfaces defined by two sets of grooves (page 11, line 20, to page 12, line 21); they are not formed by 'groove surfaces orthogonal to each other and to the inclined surface'"

In response, Applicant wishes to remind the Examiner that the written description requirement mandates no particular form of disclosure, but focuses on whether one of skill in the

art “could determine from the specification that the inventor possessed the invention at the time of filing.” *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1321 (Fed. Cir. 2003) (finding substantial evidence supported jury’s finding, as specification described the elements of the claim in sufficient detail for a person of ordinary skill to recognize possession). Moreover, the specification does not need to describe the invention in exactly the same terms as the claims. *All Dental Prodx, LLC v. Advantage Dental Products, Inc.*, 309 F.3d 774,779 (Fed. Cir. 2002) (specification’s lack of *in haec verba* support of “unidentified mass” of raw material did not violate § 112, where applicant claimed method for heating thermoplastic material). Inventors may claim their inventions in more than one way, provided the specification supports the claims. *Cooper Cameron Corp. v. Kvaerner Oilfield Products, Inc.*, 291 F.3d 1317, 1322 (Fed. Cir. 2002) (drawings supported claims, even though they recited invention in a manner that differed from the text of the written description).

In light of these principles, Applicant respectfully traverses the rejection under § 112, first paragraph, of pending claims 2 and 3, and their dependent claims 4 and 10-12. The Examiner focuses on terminology in the specification involving a first groove set and a second groove set formed in a plurality of laminae. The relevant claims, however, call out features of a single lamina (“each lamina” in claim 2, “A lamina” in claim 3), and associate the *parallel grooves* phrase with a single lamina. One of ordinary skill would immediately understand that the second groove set formed in the plurality of laminae produces an inclined surface in the working surface of a single lamina (e.g. groove surface 50a in the first full lamina shown on the left-hand side of FIG. 8), plainly shown in FIGS. 8 and 9. One of ordinary skill would also immediately understand that the first groove set described in the specification produces groove surfaces (e.g. surfaces 40a and 42b in FIG. 9) orthogonal to each other and to the inclined surface to form a row of rectangular cube corner elements (such as elements 70a, 70b, etc. in FIG. 9) in the working surface of the (individual) lamina. Hence, since one of ordinary skill would understand from the specification that the second groove set formed in the plurality of laminae forms an inclined surface extending along the working surface of a particular single lamina, and that the first groove set formed in the plurality of laminae forms groove surfaces orthogonal to each other and to the inclined surface so as to form a row of rectangular cube corner elements in the working surface of that particular (single) lamina, the *parallel grooves* phrase is fully supported

from the standpoint of § 112, first paragraph, and the rejection under that statutory provision of claims 2 and 3, and their dependent claims 4 and 10-12, should be withdrawn.

c. “nonrulable”

The Examiner asserts that this term, as used in claims 1, 4, and 8, is not supported by the original disclosure “because the array of cube corner elements is rulable (see the teachings on page 13, lines 20-21, and line 27 to page 14, lines 6-10 and 18-19).”

Applicant respectfully traverses. The Examiner points to passages of the specification that teach that the first groove set is formed in the plurality of laminae by a ruling operation (FIGS. 4-5), and that the second groove set is also formed in the plurality of laminae by a ruling operation (FIGS. 6-8, best shown in FIGS. 8 and 9). Applicant does not dispute that. Still, the Examiner is mistaken when he concludes from this that the array of cube corner elements must also be rulable. This mistake is the result of overlooking the fact that the laminae are reoriented between the formation of the first groove set and the formation of the second groove set. Compare FIGS. 3-4, where the laminae 10 are tilted at an angle θ_1 relative to the base plane 80, with FIGS. 6-8, where the laminae have been reoriented to be perpendicular to the base plane 80 (see also page 14 lines 19-24). The reorientation converts the “substantially continuous lines” formed by reference edges 36 and groove vertices 33 of the first groove set (page 14 lines 8-10) into discontinuous line segments that are inclined relative to the base plane. These line segments are part of the “array of cube corner elements” shown in FIGS. 8 and 9, causing such array, when considered as a whole, to be nonrulable. One of ordinary skill would readily understand this from the clear step-by-step description leading up to FIG. 9. Withdrawal of the rejection under § 112, first paragraph, of claims 1, 4, and 8, and their dependent claims, is respectfully requested.

d. “for every plane in space there are two adjacent microcubes for which
at the place of adjacency none of the face edges is parallel to that plane”

The Examiner asserts that this language (referred to herein as the “*every plane in space* phrase”), as used in claims 5 and 7, is not supported by the original disclosure “because based on the teachings discussed [on page 13, lines 20-21, and line 27 to page 14, lines 6-10 and 18-19]

and FIGS. 8-9, for every plane in space there are two adjacent microcubes for which at the place of adjacency at least one of the face edges is parallel to that plane.”

We respectfully traverse. The *every plane in space* phrase comes from the ‘214 Heenan et al. patent and results from the process of copying claims. The phrase, which is admittedly perplexing, was introduced during prosecution of the ‘214 Heenan et al. patent, with representations by Heenan et al.’s counsel appearing to equate the phrase with the term “non-rulable”. As the undersigned currently understands the phrase, it applies to certain types of cube corner element arrays including the array of Applicant’s FIG. 9, but *not* to all nonrulable cube corner arrays. Clarification on this point is respectfully requested from the Examiner.

The *every plane in space* phrase involves complex geometric concepts, which we believe can be most effectively addressed in the context of an in-person interview with the assistance of 3-dimensional models, which the undersigned can present to the Examiner. The undersigned therefore respectfully requests such an in-person interview with the Examiner for the purpose of discussing the *every plane in space* phrase, so that the undersigned can show how the phrase applies to Applicant’s FIG. 9 and the Examiner can provide the clarification requested above.

Withdrawal of the rejection under § 112 (first paragraph) of claims 5 and 7, and their dependent claims, is respectfully requested.

Anticipation

The Office Action also rejected claims 1-22 as anticipated under 35 USC § 102(e) by the 6,015,214 Heenan et al. patent. These claims, however, were copied either identically or substantially from the ‘214 Heenan et al. reference. Upon resolution of the 35 USC § 112 first paragraph rejections above, Applicant intends to submit an appropriate showing pursuant to 37 CFR § 41.202 so that an interference can be declared.

Conclusion

As mentioned above, the undersigned respectfully requests an in-person interview with Examiner Phan so that the unusual *every plane in space* phrase can be discussed, and all § 112 issues resolved. Applicant submits that the pending claims 1-22 conform to the written description requirement of 35 USC § 112, first paragraph, and that the rejection under that statute should be withdrawn.

No fee is believed to be due by submission of this paper. If this belief is in error, please charge any required fee to Deposit Account No. 13-3723.

Respectfully submitted,

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Date

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